

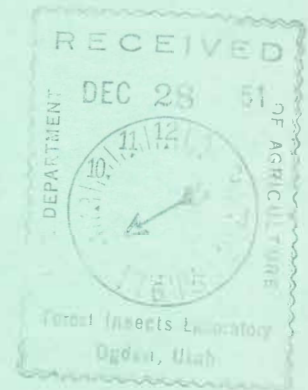
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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

GRAND TETON NATIONAL PARK

FILE NO.



FOREST PEST CONTROL PROJECT

1951

IMPORTANT

This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge.

All Files should be returned promptly to the File Room.

Officials and employees will be held responsible for failure to observe these rules, which are necessary to protect the integrity of the official records.

REPORT

of the

1951

GRAND TETON NATIONAL PARK

FOREST PEST CONTROL PROJECT

Forwarded Approved:

(Sgd.) EDWARD D. FREELAND

Edward D. Freeland
Park Superintendent
Grand Teton National Park

Submitted October 31, 1951, by

Blake C. Vande Water

Blake C. Vande Water
Park Ranger
(Acting Project Superintendent)
Grand Teton National Park

Paul A. Judge

Paul A. Judge
Chief Park Ranger
Grand Teton National Park

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ADDENDA:

Misc. Forms & Safety Instructions

Maps



In the fall of 1951, the forest stand in and adjacent to the 1951 spring treated areas was carefully checked by the National Park Service and Bureau of Entomology and Plant Quarantine. This inspection revealed that the spring control work had been phenomenally successful. Actually, only one live beetle was found in the many trees checked.

These two color pictures illustrate an example of maximum beetle kill resulting from the 1951 control treatment. In this instance, the concentration of dead beetles in the heavily attacked portion of the tree was 1.5 beetles per square inch. The killing of immature and mature beetles, in instances such as this, obviously preserved countless additional healthy trees.



BROWN TOPS



TY PICAL MOUNTAIN PINE BELTLE KILLS IN
GRAND TETON NATIONAL PARK

THE PROJECT IN GENERAL

The 1951 Mountain Pine Beetle Control Project climaxed five years of insect control measures in the Grand Teton National Park area. No further control work is expected to be undertaken unless subsequent checks or surveys shows a new increase in the population of the Mountain Pine Beetle (Dendroctonus monticolae, Hopkins). This years activity on beetle control in the Teton-Targhee area was completely within the boundaries of the newly formed Grand Teton National Park. No insect control was undertaken by the U. S. Forest Service this spring.

The 1950 fall survey was undertaken by the Bureau of Entomology and Plant Quarantine under the direction of Mr. Thomas T. Terrell of the Forest Insect Laboratory, Coeur d' Alene, Idaho. The results of this survey appear in chart form on page 3 of this report. It will be noted from this chart that the epidemic population which was present in the lodgepole pine (Pinus contorta, var. murrayana, Loudon) area of Grand Teton National Park (which now includes the former Jackson Hole National Monument) was materially reduced through the efforts of the 1950 Control Project. The survey estimated that this year we would find approximately 2,000 trees on 10,500 acres. Compared with last years work this showed a decrease of nearly 23,500 acres needing treatment.

The 1951 project treated 1,660 trees on 16,882 acres.

As in the past years, the methods used in treating the infested trees was prescribed by the Bureau of Entomology and Plant Quarantine. The only major change this year was in crew organization. All the field crews were trained as combination spotters-treaters, and instead of contracting the spraying to private individuals, all treating was undertaken by our personnel.

A noteworthy observation during this spring's project was the apparent lack of healthy, numerous brood of the beetle in the newly infested trees. More frequently than not, the larvae were small, their activities limited, and lacking the bright white coloration so frequently encountered in previous years.

We believe that we may now safely state that the expenditures for control have not been in vain. What could easily have developed into a mass killing of the forested areas of Jackson Hole and a grave invasion of Yellowstone National Park's virgin



forests has been thwarted.

Grand Teton National Park wishes to express its continued thanks to the Regional Office, Yellowstone, Glacier, and Wind Cave National Parks, The Bureau of Entomology and Plant Quarantine, and the U. S. Forest Service for the material aid and personnel assistance so willingly offered during this emergency.

PITCH TUBES



These yellow pitch tubes indicate the trees struggle to push out the attacking beetles as well as the number of attackers.

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
INSECT SURVEY
GRAND TETON NATIONAL PARK AND JACKSON HOLE NATIONAL MONUMENT
FALL 1950

UNIT	No.	APPROX. 1950 ACRES TYPE	ATTACKS PER ACRE	1950 INFESTATION	% CHANGE FROM 1949	ACTION RECOMM'D	% SURVEY	REMARKS
Signal Mt.	1-1A	4100	.15	615	-60	Control Re- commended	3.4	Spring control
Burnt Ridge	2	1300	0	0	-100		3.3	Spring control
Jenny Lake	3	700	.04	23	- 66		3.6	Spring control
Headquarters	4	2500	.05	135	- 90		4.5	Spring control Not completed
Windy Point	5	3000	.16	480	- 64	Control Rec.	4.7	Spring control
J. V. Ranch	6	4150	.15	622	0	Control Rec. on 500 Acres	4.5	Spring control Not completed
Timbered Island	7	600	.12	72	0	Control Rec.	4.0	Spring control
Black Tail Butte	8	250	.31	77	- 73	Control Rec.	7.5	Spring control
Jackson Lake	9A	2000	.14	230	- 87	Control Rec.	4.2	Spring control
Jackson Lake	9	6000	.05	300	- 69		4.4	Spring control
Snake River	10	300	.07	21	- 92		9.3	Fall control by F. S.
Hermitage Point	11&12	9200	.04	563	-60		1.8	Spring control
Lava Creek	13	1500	0	0	-100		4.1	Spring control by F. S.
		<u>36200</u>		<u>2928</u>				

PROJECT ORGANIZATION AND OPERATION

The unseasonal presence of deep snows last spring was the deciding factor against an early start on this years activities. May 14 was the date selected and a wise choice it proved to be. With just a few exceptions, all snow had left the areas and it was possible to send crews into the field immediately upon completion of training.

Park Superintendent Edward D. Freeland and Chief Ranger Paul A. Judge were supervisors of the over-all project.

Park Ranger Blake C. Vande Water was detailed as Project Superintendent.

The Regional Office again assisted the project through the welcome services of Regional Forester Frank Childs. Mr. Childs was instrumental in getting both outlying camps set up and ready for habitation. Although Mr. Childs was here for only two weeks this year, his leadership was responsible for a noticeably smoother operation of the project.

Mr. Leslie Orr, Bureau of Entomology and Plant Quarantine, assisted the project superintendent on a brief 3 day survey in late April. Mr. Orr returned on May 30 accompanied by Mr. Tom T. Terrell of Coeur d'Alene, Idaho. For the next three days Mr. Orr and Mr. Terrell assisted Ranger Miller and Mr. Ben Hadley in organizing and initiating this years training program. Both these gentlemen materially aided the project through their suggestions and technical assistance.

On June 7, Mr. Richard Washburn and Mr. Eugene Davidson of the Ogden office of the Bureau of Entomology and Plant Quarantine visited the control areas. Mr. Washburn returned to his office on June 13, leaving Mr. Davidson at Teton for the balance of the project. Mr. Davidson's aid was of great benefit to us during his stay. He ran surveys, advised and assisted our checkers, inspected spotting-treating methods, and was helpful with his technical suggestions. We wish to thank the Bureau of Entomology and Plant Quarantine for the availability of Mr. Davidson.

Yellowstone detailed Ranger Paul Wykert - his third season on the project, and Glacier detailed Ranger Bruce Miller - his second year. Wind Cave detailed Ranger Harold R. Jones. Ranger Jones took over the responsibilities of camp superintendent at the Whitegrass camp and displayed both great interest and ability in managing the control work in the south area. We are grateful for the addition of Ranger Jones to our overhead personnel staff.

Because this years project was scheduled as a short term event, it became a near impossibility to obtain college students who could qualify for the graded positions; only seven men were available for these jobs. Mr. Ben L. Hadley, Jr. returned and was again instrumental in handling the training of all field crews. Mr. Robert Scoggin and Mr. Lynn Williamson, long time park seasonal employees and veterans of post insect control projects were placed as Checkers. The Bureau of Entomology and Plant Quarantine recommended the services of Mr. William J. Hart as a Chief Spotter.

Availability of satisfactory crew personnel proved a problem from the start, however, following a policy change by the U. S. Civil Service Commission, it was found permissible to hire men 16 years of age and older. This ruling made available a supply of high school students from local areas, and while there was some justifiable hesitance in recruiting such young men, the fears were quickly quelled as nearly all of them proved to be interested, eager, and willing. Close supervision was necessary and we were most fortunate in having enough qualified Chief Spotters to successfully handle the job.

Two camps were set up this year in order to alleviate the crowded conditions which result at Park Headquarters during the spring of the year. One camp was constructed in the vicinity of the Jackson Lake campground. This camp was for 25 men and the 3 crews stationed there, under the supervision of Ranger Wykert, worked the north control areas. The other camp was set up near the Whitegrass Patrol Cabin and the 3 crews stationed there, under the supervision of Ranger Jones, worked the south control areas. This double camp method, with an additional small receiving camp at Headquarters made possible a more efficient operation of the over-all project. Men were received at Headquarters and as soon as training was completed sent to a camp. With no crews operating out of Headquarters, it became possible to insure a more prompt supply distribution and a better transportation system for both camps.

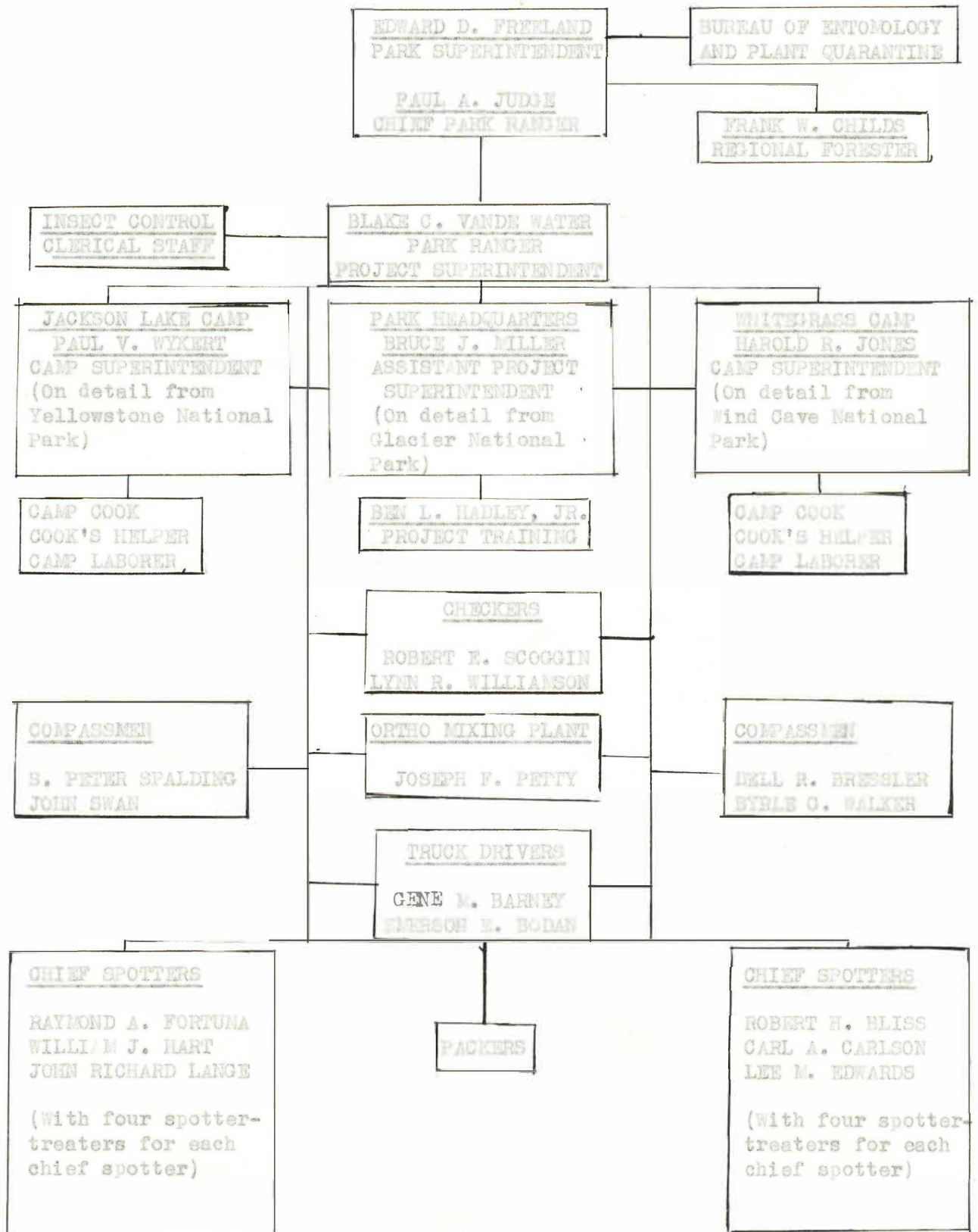
The Forest Service again was most cooperative in loaning or renting us needed equipment.

The ortho-oil spray mix was prepared at the Headquarters mixing plant and distributed to the required areas. The same equipment was available this year as was used last.

A new addition to the project this year was the 5 man woodcrew which was deemed essential. This crew was kept busy constantly getting in enough fire wood to supply both camps and to replace wood used by our personnel stationed at Headquarters. Late unseasonal snow showers and the tendency for cold winds blowing off Jackson Lake resulted in great quantities of fuel being consumed.

The project organization chart is presented on the next page.

ORGANIZATION CHART
MOUNTAIN PINE BEETLE PROJECT
GRAND TETON NATIONAL PARK





Crew training is one of our important phases of a thorough job.



Vertical galleries in the cambian layer of a live tree showing the intenseness of a single attack. The small horizontal canals were made by the recently hatched eggs, or larvae, which in turn actually girdle the cambian layer, killing the tree.

TRAINING

As stated previously, Mr. Les Orr and Mr. Tom Terrell assisted and advised in the initial phase of the 1951 training program.

Ranger Bruce Miller and Mr. Ben Madley, Jr. handled the training for the second year.

Working in conjunction with Messrs. Orr and Terrell, a new training outline was drawn up. Six hours was set up for classroom training and included the showing of the color sound movie entitled "Fighting the Tree Killer". The following training outline was used in discussing the important aspects of the project.

I. Introduction

- A. History of the project.
- B. National Park policy - why we have control projects.
- C. Responsibility of the Park Service and cooperation with the Forest Service and the Bureau of Entomology and Plant Quarantine.
- D. Emphasis on necessity of reducing insect population to endemic proportion.

II. The Mountain Pine Beetle

- A. Forest insects in general - their importance and destructiveness in National Parks.
- B. Old outbreaks - examples of forest insect depredations on other areas.
- C. Controls - types of. How methods of control are determined.
- D. Life history of the Mountain Pine Beetle
- E. Display of bark and tree samples.
- F. Discussion, questions, and answers.

III. Insect Control Movie

IV. The Project

- A. Area Involved (approximately 2,000 trees on 10,500 acres).
- B. Project goal.
- C. Organization - lines of authority.
- D. Job relationships within the project.
- E. Headquarters camp - function.
- F. Outlying camps - function.

V. Safety

- A. Safety history of past projects.
- B. Safety goal - no lost time accidents.
- C. Responsibility of the National Park Service.
- D. Personal protection on the job.
 - 1. Wild animals
 - a. Big game - leave young alone.
 - b. Snakes - non-poisonous.
 - c. Ticks - precautions from.
 - 2. Vehicles
 - a. Driving responsibilities.
 - b. Riding - dangers involved.
 - c. Use of jeep winches.
 - 3. Hand tools
 - a. Hatchets - don't throw.
 - b. Shovels and rakes.
 - c. Axes.
 - 4. Woods Walking
 - a. Proper footgear - good boots, etc.
 - b. Danger of slippery logs.
 - c. Snow on ground - avoid.
 - d. Widow-makers.
 - e. Rolling rocks.
- E. Fires and Smoking
 - 1. Danger of Forest Fires.
 - 2. Safe smoking periods.
- F. Pack Horses
 - 1. Danger of burning with ortho spray.
 - 2. Warning to keep away from - let packers handle horses.

VI. Sanitation and Health

- A. Clean quarters.
- B. Available facilities - showers - use them!
- C. Clothing - importance of cleanliness.
- D. Keeping food or cooking in tents - not allowed.
- E. Drinking water - safe in most mountain streams.
- F. Importance of prompt reporting of sickness or accident.

VII. Field Instructions in Spraying

- A. The equipment.
- B. How to use equipment.
- C. Actual practice.

VIII. Field Demonstration of Bug Trees

- A. External identification of bug tree.
 - 1. Pitch tubes.
 - 2. Woodpecker work.
 - 3. Crown discoloration.
 - 4. Blind attacks.
 - 5. Pitch outs.
- B. Internal examination of bug tree.
 - 1. Galleries.
 - 2. Larval mines.
 - 3. Pupal chambers.
 - 4. Blue stain.
- C. Ips beetle attacks.

IX. Crew Organization

- A. Compassman's duties.
 - 1. Use of compass
 - 2. Pacing for string width.
 - 3. String laying.
- B. Chief Spotter's duties.
 - 1. Command of crew.
 - 2. Voice and hand signals.
 - 3. Marking bug trees.
 - 4. Reporting infractions of regulations.
 - 5. Daily written reports to camp superintendent.
- C. Spotter-Treater's duties.
 - 1. Positions between string lines.
 - 2. Importance of zig-zagging when walking.
 - 3. Alignment with rest of crew.
 - 4. Voice signals.
 - 5. Proper use of hand axe - keep in sheath except when in actual use.
 - 6. Spraying of infested trees.

Available for classroom display this year was an assortment of bark samples taken from infested trees. These displays made possible an advanced knowledge that could not be obtained through words or pictures. Ample time was allotted for questions and answers.

Following the classroom period, actual practice in tree spraying was given every man. This was accomplished by using the regular spray equipment, but substituting water for the ortho-mix. Non-infested trees in the Headquarters area were used for practice purposes.

The morning of the second day was utilized in showing the men bug trees in the field and demonstrating methods of checking trees. The afternoon was devoted to crew organization and actual spotting practice. The morning of the third day was used for spraying the trees found by the practice spotting. The third afternoon the crews were put on their own, accompanied by a qualified checker, who supervised the activity.

Safety instructions and regulations were emphasized throughout the training period. Mimeographed sheets of safety hints and regulations were issued to each man on the project. Samples of these forms are included in the map section of this report.

SPOTTING-TREATING

Past experience in insect control has shown that combination spotting-treating by one crew is a more efficient method than either of the two methods employed on last years project. Only one trip over an area is required and there is no possibility of a treating crew or contractor being unable to locate a marked tree through improper mapping or tags falling off trees. The importance of the latter mentioned problem was brought to light on several occasions when our checkers would go into an area treated only 2 days prior and find tags nearly destroyed by woodpeckers or squirrels. Another big advantage of the one trip method is that string lines are not destroyed by roving animals.

Six crews of five men preceeded by a compassman comprised the control crews for the entire project. Three crews worked out of each camp accompanied by one pack string of 3 pack and one saddle horse for each crew. Jeep cans of spray were set at convenient locations by the Headquarters truck drivers and camp superintendents.

The first 3 crews entered the field on the Windy Point area on May 24, the next 3 crews commenced control work on the Signal Mountain area on May 31.



A spotter-treater crew made up of four spotter-treaters, one chief spotter, and one packer about to move systematically through a lane of timber.



A two-man spraying method using orthodichlorobenzene to penetrate the bark of the tree.

The 1951 project crews treated a total of 1,660 trees on an estimated 16,882 acres of Lodgepole forest. A total of 3,779 gallons of ortho-mix was used. An average of 2.4 gallons of the spray was used per tree; this lower than last years figure resulting because of the generally lighter attacks on smaller trees.

The 1950 fall survey by the Bureau of Entomology and Plant Quarantine indicated no control necessary on several of the areas treated last year. It did, however, indicate two additional areas needing treatment, one of which received only a token effort last year. Both of the additional areas were thoroughly covered, and, a new area of approximately 760 acres of forest type was added the last week after Entomologist Davidson's survey in the Glacier Gulch area uncovered a rather intensive attack. This area netted the spotting-treating crews 114 trees, most of which were over mature lodgepole up to 28" DBH.

A summary of areas covered follows:

Area	Trees Treated	Estimated Acreage Treated
Signal Mountain	385	5,023
Jackson Lake (9A)	263	1,689
Windy Point	391	4,447
Timbered Island	40	719
Blacktail Butte	62	1,555
Wister Draw	93	910
Open Canyon	332	1,573
Glacier Gulch	114	761
TOTALS	1,660	16,882

On June 21 it was deemed advisable to release all personnel excepting two full crews selected from the best qualified men on all crews. These two crews were used to finish small areas and complete the closing of the outlying camps.

The last day of treating was June 27, when the crews finished the Glacier Gulch area.

TRANSPORTATION

Acquisition of a new Chevrolet Panel truck was a big boost to the vehicle pool this spring. It was not, however, the complete answer to our problem, and since we did not have the two busses or two jeep pickups used last year, there were times when crews were retarded in reaching the treating areas. A complete engine breakdown in the 4-wheel drive snub nose truck further hampered work in the more difficult back country areas. A Dodge power wagon was rented from the Forest Service and relieved that situation.

NATURAL CONTROL

The general consensus of opinion among the chief spotters and checkers this year was that the woodpecker population was somewhat increased over last year. Several chief spotters reported that nearly every bug tree showed woodpecker activity on the trunk.

Also noted was what appeared to be winter kill of the beetle in many trees. Last winter was not considered a cold season, however in the fall there was considerable variations in temperatures during two or three periods. This may have had an effect on the bugs, which, as previously mentioned, seemed lacking in vitality and size.

Also noted were the great number of pitch-out attacks on the trees.

There was no noticeable increase in Bark Beetle predators among the insect family.

OTHER FOREST INSECTS

Porcupine damage in the Lodgepole forests of the park seems to be on a definite increase.

Ips beetle attacks were more plentiful than last year, some even being found in trees not hit by the mountain pine beetle, though the Ips is considered a secondary insect.

PROJECT SAFETY RECORD

Safety was emphasized during the training program, and reminders given to all crews by overhead personnel. Mimeographed sheets of safety instructions were issued to each man.

There were only four reportable accidents during the project. Two required medical attention but returned to work on the next shift. The other two did not require a doctor's care and returned to work after first aid. The accidents fell into the following categories:

1. Packer - Kicked by horse and cut on cheek.
2. Spotter-Treater - Cut leg while limbing a bug tree.
3. Spotter-Treater - Oil spray in eyes caused by spray nozzle plugging and spray hose breaking.
4. Woodcrew man - Cut hand on axe while limbing down tree.

In all cases the accidents could have been prevented, and, too, in all cases the men concerned had had no prior woods experience.

We believe this safety record is very good considering the age of most of the men and their lack of previous experience. The fact that there was close supervision by the Camp Superintendents and Chief Spotters was cause for the low record.



A burning method of treating
which can only be used in very
wet weather.



A fifty-man camp on Pilgrim Creek in
Grand Teton National Park.

RECOMMENDATIONS

My recommendations are justified by only one years work in this capacity but the necessary employment of very young men, 16 and 17 years old, proved very successful. The men, although very young, were open minded and very anxious to learn. We encountered no hangover days, few lost days and very little man power turnover. We believe this was due to excellent training, constant supervision, and a good mess operation.

Again this year we fought the weather and employment situation to get underway to make possible the completion of the project in time. We recommend that a fall operation in this area would be much more economical both on the nerves and the appropriations.

Blake C. Vande Water

FINANCIAL STATEMENT
PARK INSECT CONTROL PROJECT
AS OF OCTOBER 31, 1951

Direct Project Expenditures:

Appropriation # 14-1212258.020 (10)	\$41,843.25
Appropriation # 14-1222258.020 (10)	.00

Personal services

A. Supervision	7,195.82
B. Labor	18,754.18
Total Personal services	<u>\$25,950.00</u>
Less Subsistence Reimbursible	2,769.30
Net Personal Services	<u>\$23,180.70</u>

Communications	73.02
Contractual Service (Tree Treating)	.00
Other Contractual Services	53.75
Rental (Pack Horses & Equipment)	1,634.00
Rental (Forest Service Truck)	15.60
Equipment	2,164.17
Supplies and Materials	6,297.99
Transportation of things	37.49
Travel (Including travel cost of Men detailed from other Parks)	1,166.79
Taxes and Assessment	<u>342.97</u>
Total Direct project Expenditures	<u>34,966.48</u>

Allotment Withdrawals	5,000.00
Unobligated Balance of Appropriation 14-1212258.020 (10)	1,911.61
Unobligated Balance of Appropriation 14-1222258.020 (10)	RE 34.84
Total Direct Project Expenditures	34,966.48

Less Inventory of new equipment, Supplies, and materials, etc. on hand and available for future projects.	<u>3,611.03</u>
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Net Project Cost	\$31,355.45
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Cost per tree (1,660)	18.88
Cost per acre (16,882)	1.85

The seemingly high cost per tree treated may be justified by low cost per acre covered. This being one of the final phases of treating infestation was light.

GRAND TETON NATIONAL PARK
MOUNTAIN PINE BEETLE CONTROL PROJECT
1951

DAILY SPOTTING-TREATING CREW'S REPORT

AREA _____ DATE _____

NUMBER TREES SPOTTED-TREATED			
1	26	51	76
2	27	52	77
3	28	53	78
4	29	54	79
5	30	55	80
6	31	56	81
7	32	57	82
8	33	58	83
9	34	59	84
10	35	60	85
11	36	61	86
12	37	62	87
13	38	63	88
14	39	64	89
15	40	65	90
16	41	66	91
17	42	67	92
18	43	68	93
19	44	69	94
20	45	70	95
21	46	71	96
22	47	72	97
23	48	73	98
24	49	74	99
25	50	75	100

Names of Crew	Hours Worked	REMARKS:
Crew Leader		
1.		
2.		
3.		
4.		
5.		
TOTAL		

Total Trees Treated _____
 Total crew man-days _____
 Trees per man-day _____
 Total acreage covered _____
 Trees per acre _____
 Acres per man-day _____
 Gallons of Spray Mix Used _____

Crew Leader _____

Supervisor _____

CHECKER'S REPORT
INSECT CONTROL

Camp _____ Chief Spotter _____

Date _____ Time _____ Area _____

String Line Nos. _____

Spotting and Treating _____

Approx. Acres Checked _____ Marked trees _____ Missed trees _____

List Tree Nos. checked _____

Proper Treatment _____ Too Low _____ Poor Coverage _____

Total

Remarks:

checker

Action Recommended:

GRAND TETON NATIONAL PARK
MOUNTAIN PINE BEETLE CONTROL PROJECT
1951

CHIEF SPOTTER'S DAILY REPORT

Area _____ T. _____ R. _____ Sec. _____ Date _____

Strip Numbers _____

Names of Crew		Hours Worked	Remarks
Chief Spotter			
1.	Compassman		
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
Total			

Total Trees Spotted _____
Total Trees Treated _____
Total Crew man-days _____
Total trees per man-day _____
Total acreage spotted _____
Trees per acre spotted _____
Acres per man-day spotted _____
Gallons of Spray Mix Used _____

Chief Spotter _____

Supervisor _____

Instructions:

Chief Spotter will furnish the supervisor one of these forms completely filled out each evening.

"Total Crew Man-Days" includes Chief Spotter and Compassman.

MIXING PLANT OPERATOR'S REPORT

NAME _____

DATE _____

NO. OF GALLONS ORTHO MIX CHECKED OUT _____

NO. OF GALLONS DIESEL OIL CHECKED OUT _____

AREA BEING WORKED _____

NO. OF DRUMS _____

NO. OF JEEP CANS _____

NO. OF WATER CANS _____

DRUMS RETURNED EMPTY _____

CANS RETURNED EMPTY _____

CANS RETURNED FULL _____

MIXING PLANT OPERATOR

PACKER REPORT

CAMP _____

AREA _____

DATE _____

PACKER _____

NO. OF FULL CANS PACKED OUT _____

NO. OF EMPTY CANS RETURNED _____

NO. OF FULL CANS RETURNED _____

NO OF FULL CANS LEFT OUT _____

GRAND TETON NATIONAL PARK

MOUNTAIN PINE BEETLE CONTROL PROJECT
1951

GENERAL SAFETY INSTRUCTIONS TO ALL PROJECT PERSONNEL

The Park Service will endeavor to make your living and working conditions the best possible under the circumstances and will constantly try to improve any conditions that do not meet good standards. There are a number of basic instructions concerning safety that all of us will have to observe in order to complete our important forest control project safely and efficiently.

As prevention of accidents is far better and less expensive than care after the damage is done, we ask each individual to be on the alert for conditions that may cause an accident and then to conduct himself upon meeting these conditions so that the accident will not occur, however, in spite of all precautions accidents will occur and it is all important to your own welfare that any accident be reported to your supervisor. Remember, report all accidents, no matter how minor they might be.

Your safety ideas are valuable because you are doing the job, we will appreciate any ideas that you have on safety.

Please study the safety instructions and work accordingly.

1. Each man must be adequately clothed before starting work. Your feet need extra protection--good tough work shoes or boots and clean socks are absolutely required.
2. No liquor will be allowed in the camp. Liquor and work do not mix and anyone violating this regulation will not be retained on the project.
3. Guns or other lethal weapons are not permitted in the Park.
4. Cleanliness is a must. Keep living quarters clean, orderly and safe. Keep litter off the floors. This is not the Army but they did have some darn good sanitation ideas.
5. Sanitation facilities are provided for your use. We will keep them clean with your help.
6. Some sort of metal ash trays or cans will be used in tents for safe disposal of cigarettes and matches.
7. Be careful of fire. Bank stove fire before leaving quarters--these small stoves can get very hot.
8. We do not tolerate horseplay in any form. Horseplay is a forerunner of accidents and if there is horseplay it means that some one is not working.
9. Keep tools that are assigned to you in good shape--a sharp tool is a safe tool. Bring any broken or damaged tools in for replacement or repair.
10. Know where fire extinguishers and water systems are so that immediate action can be taken in case of fire.
11. Keep clothes racks or drying racks away from stoves.

GRAND TETON NATIONAL PARK

MOUNTAIN PINE BEETLE CONTROL PROJECT 1951

SPECIFIC SAFETY INSTRUCTIONS TO SPOTTER-TREATERS

Accidents don't "just happen". They are caused by either sheer carelessness, or lack of knowledge of the consequences of an unwise act. Our goal on this project is to have no lost time accidents. For that reason we present to you the following recommendations and reminders in order that YOU, the man that spells success or failure to the project, may work safely and not suffer a needless accident. Please read carefully the rules and safety hints and keep them in mind while on the job or in camp.

A. Walking in the Woods

1. Hazards encountered when simply walking in the woods are numerous, especially during the spring season when melting snow results in slippery footing.
2. Buried trees are prevalent in snow banks. Sliding down snow banks is a sure-fire way to receive a broken leg.
3. Avoid leaning trees, loose branches, snags, and windfalls. Small snags have caused many eye injuries.
4. Always wear shoes not less than ankle height, preferably logger boots. Rubber or composition soles and heels are a necessity. No cowboy boots.
5. Cuffless trousers are recommended to avoid tripping or snagging.
6. When walking single file do not grab at branches and let them snap back into the following man's face. Duck under or lift upward. Be woods-wise.
7. Step over logs - not on them.
8. Horseplay in the woods will not be tolerated in any form.

B. Hatchets

1. A sharp hatchet is a safe hatchet. Your Chief Spotter has a file or oil stone - use them.
2. Throwing hatchets is absolutely prohibited. Anyone throwing a hatchet will be immediately discharged from the project.
3. The proper place for your hatchet, except when in actual use, is in the leather sheath furnished you.
4. The hatchet issued you is for examining bug trees - not for splitting fire wood.
5. When examining a bug tree avoid chopping toward yourself. Cut the bark of the tree - not your hand or leg.
6. Be certain you have ample clearance when examining a bug tree. Watch that you don't hook up on a limb or twig.

C. Handling Ortho Mix

3. If you get ortho mix in your eyes, wash with water. Don't rub your eyes with oily hands.
4. For better protection wear gloves when handling ortho mix.
5. Some men are susceptible to ortho and will break out in a rash. Report this occurrence at once to your Chief Spotter or Camp Superintendent.
6. Don't smoke in the immediate vicinity of ortho - it is highly inflammable.
7. Do not attempt to unpack a can of ortho from a horse. Keep away from the horses - the packers are paid to handle the stock. You are being paid to treat bug trees - not to wear hoof prints!

D. General Hints

1. There is no substitute for sound judgement and common sense.
2. Stay seated when riding in vehicles.
3. Watch for low hanging branches and limbs along the road. Keep your arms and head inside vehicles.
4. Don't throw trash from the trucks.
5. Leave the young of wild animals strictly alone. They aren't lost. Don't tease or molest them.
6. Wear clean socks daily. Infections can arise from blisters.
7. Remember that you are employed on one of the nation's largest Mountain Pine Beetle projects. We have a maximum amount of work to accomplish in a short period. The bugs must be killed before they leave the trees. We can, therefore, not tolerate horseplay or wanton waste of time and effort. Strict attention to your job will result in safety to yourself as well as your buddies.
8. FEAR FOREST FIRES!!!! Remember that fire is the forests' greatest danger. Smoke only when your Chief Spotter authorizes a smoke period.

GRAND TETON NATIONAL PARK

MOUNTAIN PINE BEETLE CONTROL PROJECT 1951

SAFETY AND GENERAL INSTRUCTIONS TO CHIEF SPOTTERS

The chief spotter's place in safety is definitely one of their greatest responsibilities since they are more directly connected with the men than anyone else in a supervisory capacity, and they will be held accountable for the safe and efficient work of each crew member.

The chief spotter needs to:

1. FEAR FOREST FIRES!!!! Forest fires are feared above all other forest enemies. Watch your men closely and warn them constantly of the dangers of forest fire. Make them fire conscious and be sure that their discarded cigarettes and matches are completely out. During the high fire danger season you will have smoking periods and no man shall smoke except during these periods. If any man cannot obey the smoking restrictions, we do not want him around.
2. Develop a sympathetic understanding of fellow workers. Endeavor to get out a day's work, maintain quality and keep cost down.
3. Maintain a firm but cheerful, patient and consistent attitude, even under trying conditions. (There will be plenty).
4. Recognize and eliminate job hazards, know his safety regulations and thoroughly train and familiarize each crew member with the safety program. No man shall be assumed to be exempt from safety instructions.
5. Make certain that each vehicle and crew under his supervision is supplied with first-aid kits and instructions for proper first-aid accidents. Take prompt action on all reports and accident forms and work out means to prevent any future recurrence. Be sure that essential safeguards are provided and require full safety rule compliance--do not take short-cuts on the rules.
6. Invite and encourage safety and job suggestions from your crew members, use and give credit for those which will improve work methods or safety.
7. Accept responsibility for his own acts and those of his crew--don't pass the buck.
8. When giving orders make them complete, concise and be sure they are clearly understood. Repeat orders and have employee repeat so you are sure he understands.
9. Set a proper example in all of his actions for his men to follow.

Anyone that supervises the efforts of others assumes a lot of responsibility for their welfare. He must require proper use, care, and maintenance of equipment and supplies within his responsibility. He must enforce rules and regulations impartially and make the best use of the abilities of those under his supervision.